ORIGINAL

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In re:	)	
	)	
Amendment of Section 73.622	)	
Final DTV Table of Allotments	)	MB Docket No.
Television Broadcast Stations	)	
(Birmingham, Alabama)	)	

FILED/ACCEPTED

DEC 15 2009

Federal Communications Commission
Office of the Secretary

To: Secretary, FCC
Attn: Chief, Video Division, Media Bureau

PETITION FOR RULEMAKING

Alabama Educational Television Commission ("AETC"), licensee of noncommercial educational ("NCE") digital television station WBIQ, DTV Channel *10, Birmingham, Alabama, by its attorneys and pursuant to the Commission's Rules, hereby requests that the Commission institute a rulemaking proceeding to amend Section 73.622(i) of its Rules to substitute DTV Channel *39 in lieu of DTV Channel *10 as WBIQ's digital channel in Birmingham, Alabama. The substitution of digital channels would serve the public interest by allowing AETC to increase the station's operating power and improve local coverage, while avoiding the significant limitations on reception resulting from WBIQ's current high band VHF channel operation. In addition, as the attached technical documentation demonstrates, WBIQ's proposed operation on DTV Channel *39 will not cause impermissible interference to any other post-transition stations or allotments, or, based on a Longley-Rice showing, to any Class A stations.

AETC proposes the following amendment to Section 73.622(i) of the Commission's Rules:

City and State	Present	Proposed
Birmingham, Alabama	*10, 13, 30, 36, 50	13, 30, 36, *39, 50

0+4
09-101

In support of this petition, AETC submits the following:

A. A Petition for Rulemaking is Appropriate.

Station WBIQ is a public television station, and one of nine full-service NCE DTV stations licensed to AETC, a governmental entity established by an act of State of Alabama legislature in 1953. AETC started operating WBIQ (and WCIQ) in 1955, making Alabama the first state in the nation with a multi-station educational TV network. Through its unique programs, services, and technologies, AETC seeks to empower people to discover their world, broaden their horizons, and become active participants in shaping the future. AETC's missions include motivating children to learn, empowering students and teachers to succeed, and providing a lifelong path to knowledge.

AETC seeks to substitute DTV Channel *39 in lieu of DTV Channel *10 in order to alleviate reception problems associated with its present high-band VHF channel operation. As explained the attached Engineering Statement, building penetration, multipath, and cliff effect issues are hindering the operation of WBIQ's DTV facility, which is currently licensed to operate on Channel *10 utilizing a nondirectional antenna with an ERP of only 3 kW and an antenna height above average terrain of 326.7 meters. AETC plans to switch to a more serviceable channel in order to better serve the citizens of the Birmingham community and surrounding areas with its noncommercial educational programming via a stronger signal.

B. The Proposed Change to the Table of Allotments Will Serve the Public Interest.

The proposed change to the DTV Table of Allotments will serve the public interest by increasing the area and population served by WBIQ's (and AETC's) high quality noncommercial educational programming, while avoiding potential interference. Use of DTV Channel *39 will allow WBIQ to cover substantially more area and allow additional local residents to view the

station's noncommercial educational programming, as the proposed change will add new coverage to the north, west, and south. Although the proposed change will also result in a minor (and much smaller) loss area to the east, that entire area is already served with the same programming by AETC's sister station WCIQ, Mount Cheaha, Alabama. *See* attached Engineering Statement and Exhibits.

C. The Proposed Change to the Table of Allotments Will Not Result in Impermissible Interference to Surrounding Stations.

Under Section § 73.622(f)(5) of the Commission's Rules, an existing licensee with a DTV allotment may seek a change in the station's channel if the licensee demonstrates that the change "complies with the technical criteria in § 73.623(c), and thereby will not result in new interference exceeding the *de minimis* standard set forth in that section . . ." In accordance with these rules, AETC requests that the Commission substitute DTV Channel *39, at a power/height combination of no more than 1,000 kW ERP (directional) / 365.5 m HAAT, in place of current DTV Channel *10. As the Engineering Statement accompanying this petition demonstrates, the proposed operation of WBIQ on Channel *39 with an ERP of 1,000 kW (utilizing a directional antenna) and a HAAT of 365.5 meters would result in no impermissible interference to any other station. In particular, as detailed in the attached Engineering Statement, the proposed facility satisfies the interference protection provisions of Section 73.616 of the FCC's Rules despite contour overlap with Class A low power TV station WBMG-LP, Channel 38, based on the results of a Longley-Rice study (provided in support of a waiver request pursuant to Section 73.613(j) of the FCC's Rules), which show that the proposed WBIQ facility is predicted to cause 0.0% interference to WBMG-LP. In addition, the Engineering Statement also demonstrates that the proposed WBIQ facility, at 1,000 kW ERP and a HAAT of 365.5 meters, will not be largest digital television station within the Birmingham, Alabama market.

D. Conclusion.

For these reasons, AETC requests that the Commission institute a rulemaking proceeding to amend Section 73.622(i) of its Rules to substitute DTV Channel *39 for DTV Channel *10 as the digital television channel for WBIQ in Birmingham, Alabama. If the Commission grants this petition and modifies the DTV Table of Allotments accordingly, AETC is committed to applying for and constructing a modified WBIQ DTV facility on Channel *39.

Respectfully Submitted,

ALABAMA EDUCATIONAL
TELEVISION COMMISSION

By: Barry Persh
Margaret L. Miller
Barry S. Persh

Its Attorneys

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December 15, 2009

PETITION FOR RULE MAKING
AMEND DTV TABLE OF ALLOTMENTS TO
SUBSTITUTE CHANNEL *39 IN LIEU OF
CHANNEL *10 FOR WBIQ-DT
DIGITAL TELEVISION FACILITY
BIRMINGHAM, ALABAMA

KESSLER AND GEHMAN ASSOCIATES, INC.
TELECOMMUNICATIONS CONSULTING ENGINEERS

20091209

Prepared by William T. Godfrey, Jr.

507 N.W. 60th Street, Suite C
Gainesville, Florida 32607

ENGINEERING TECHNICAL STATEMENT PREPARED BY WILLIAM T. GODFREY, JR., TECHNICAL CONSULTANT, WITH THE FIRM KESSLER AND GEHMAN ASSOCIATES, INC. (KGA), TELECOMMUNICATIONS CONSULTING ENGINEERS IN SUPPORT OF A PETITION FOR RULE MAKING (PFRM) TO AMEND THE DTV TABLE OF ALLOTMENTS (APPENDIX B) BY SUBSTITUTING CHANNEL *39 IN PLACE OF CHANNEL *10 FOR THE WBIQ-DT DIGITAL TELEVISION BROADCAST FACILITY LICENSED TO ALABAMA EDUCATIONAL TELEVISION COMMISSION.

The firm Kessler and Gehman Associates, Inc. (KGA) has been retained by Alabama Educational Television Commission (AETC), Birmingham, AL to prepare engineering studies and the engineering portion of a Petition for Rule Making (PFRM) to amend the DTV Table of Allotments (Appendix B) by substituting digital Channel *39 in lieu of digital Channel *10 which is currently allotted to the WBIQ-DT digital television broadcast facility.

Summary

AETC is licensed to operate the WBIQ-DT facility on Channel *10 with an ERP of 3 kW at an antenna height Radiation Center (R/C) of 326.7 meters Above Average Terrain (AAT) using a nondirectional antenna (BLEDT-20090227AAV). Obstacles such as building penetration, multipath and the cliff effect are well documented with respect to hindering digital signals and this is especially true for the WBIQ-DT facility which operates with an ERP of only 3 kW using a high-band VHF channel. AETC realizes that it must move to a serviceable channel that will allow it to provide a strong signal to the community of Birmingham and many other surrounding cities. Accordingly, AETC respectfully requests authorization to substitute Channel *39 in lieu of Channel *10.

Community of License

Exhibit 10 depicts the proposed WBIQ-DT CH *39 F(50,90) 48.0 dBuV/m principal community contour and demonstrates that it will completely encompass the principal community

of Birmingham, AL. Therefore, the proposed station meets the principal community coverage requirements pursuant to section 73.625(a) of the FCC Rules.

Gain vs. Loss

Exhibit 11 depicts the licensed WBIQ-DT Channel *10 F(50,90) 36.0 dBuV/m protected noise limited contour (blue) and the proposed WBIQ-DT Channel *39 F(50,90) 41.1 dBuV/m protected noise limited contour (red). Referring to Exhibit 11, it can be seen that the proposed WBIQ-DT Channel *39 facility's F(50,90) 41.1 dBuV/m protected noise limited contour (red) will exceed the licensed WBIQ-DT Channel *10 F(50,90) 36.0 dBuV/m protected noise limited contour (blue) in almost all azimuthal directions. The area in green (GAIN) represents increased coverage and the area in red (LOSS) represents decreased coverage. The proposed facility will serve population to the west that is currently not served by AETC and the small area of loss will be covered by AETC's WCIQ-DT Channel *7 facility. Referring to Exhibit 12, it can be seen the WCIQ-DT Channel *7 facility will easily serve the small area of loss (magenta). Therefore, the proposed facility will not only serve the public's best interest by changing from VHF to UHF and increasing power, it will also serve areas in Alabama that are not currently served by any one of AETC's nine DTV stations.

Interference Protection (Waiver Requested)

Initial spacing studies, which considered DTV allotments, licenses, construction permits, applications and Class A/Class A-eligible low power television (LPTV) stations in the applicable areas surrounding Birmingham, AL, revealed that Channel *39 was a possible option for the WBIQ-DT DTV facility. A detailed interference study was prepared using the terrain dependent Longley-Rice, point-to-point propagation algorithm detailed in the FCC's Office of Engineering and Technology Bulletin Number 69 (OET 69).

The following table depicts the allotted (Appendix B) and proposed parameters respectively for the WBIQ-DT post-transition DTV facility (see enclosed "Tech Box" extract from FCC Form 340-DTV form):

Facility ID	State	City	Call Sign	DTV Chan	DTV ERP (kW)	DTV HAAT (m)	DTV Antenna	DTV Latitude (DDMMSS)	DTV Longitude (DDDMMSS)
Final DTV Table of Allotments (Appendix B) Parameters:									
717	AL	BIRMINGHAM	WBIQ	10	3	426	Non-DA	332904	864825
Proposed Channel *39 Parameters:									
717	AL	BIRMINGHAM	WBIQ	39	1000	365.5	DA	332904	864825

Accordingly, AETC proposes to amend the DTV Table of Allotments (Appendix B) for its WBIQ-DT facility by making the following changes:

1) Change from allotted Channel *10 to proposed Channel *39.
2) Change from allotted 3.0 kW ERP to proposed 1000.0 kW ERP.
3) Change from allotted 426.0 m antenna HAAT to proposed 365.5 m antenna HAAT.
4) Change from allotted nondirectional antenna (Non-DA) to proposed directional antenna (DA).

The proposed Channel *39, 1000 kW ERP facility satisfies the interference protection provisions of §73.616 of the FCC Rules. Exhibit 13 is a Longley-Rice interference study that was computed using a Sun Microsystems computer work station loaded with the FCC's DTV analysis software. The interference percentages are exactly the same as the FCC calculations since the study was performed using the same type computer and the same interference analysis software. Referring to Exhibit 13, it can be seen that the proposed WBIQ-DT Chanel *39 facility will have contour overlap with the WBMG-LP Channel 38 Class A low power TV (LPTV) facility; however, Section 73.613(j) of the FCC rules states that, in support of a waiver of the interference protection requirements, an applicant for a TV broadcast station may make

full use of terrain shielding and Longley-Rice terrain dependent propagation methods to demonstrate that the proposed facility would not be likely to cause interference to Class A TV stations. Accordingly, AETC herby requests a waiver of the interference protection requirements.

Referring to Exhibit 13, pages 30-32, Longley-Rice demonstrates that the proposed WBIQ-DT Channel *39 facility is predicted to cause 0.0% interference to the WBMG-LP Channel 38 Class A LPTV facility which is below the 0.5% threshold. Therefore, the proposed WBIQ-DT Channel *39 facility complies with Class A protection requirements pursuant to Section 73.613(j) of the FCC rules.

Exhibit 13 demonstrates that the proposed WBIQ-DT Channel *39 facility will not cause more than 0.5% interference to full-service DTV stations. Referring to Exhibit 13, it can be seen that the maximum interference the WBIQ-DT Channel *39 facility is predicted to cause is 0.46% to the licensed WSB-TV Channel 39 Atlanta, GA DTV facility. Exhibit 13 also demonstrates that the proposed WBIQ-DT Channel *39 facility satisfies the requirements for FCC Monitoring Stations, West Virginia Quiet Zones, Table Mountain, and Canadian/Mexican border coordination. Accordingly, the proposed WBIQ-DT Channel *39 facility satisfies the interference protection provisions of 47 C.F.R. §73.616.

Largest Station in the Market

The DTV Maximum Power and Antenna Heights Table in Section 73.622(f)(8) of the FCC rules states that the maximum allowable ERP for a DTV station that operates on a channel between 14-59 with an antenna HAAT of 365.5 m is 998.3 kW (interpolated). However, §73.622(f)(5) of the FCC rules states that licensees and permittees assigned a DTV channel in the initial DTV Table of Allotments may request an increase in either ERP in some azimuthal direction or antenna HAAT, or both, that exceed the initial technical facilities specified in Appendix B, up to that needed to provide the same geographic coverage area as the largest station within their market, whichever would allow the largest service area. It was determined

that the licensed WIAT-DT Channel 30 (1,000 kW ERP) Birmingham, AL facility is the largest station in the Birmingham, AL market. Exhibit 14 depicts the licensed WIAT-DT Channel 30 facility's F(50,90) 40.3 dBuV/m protected noise limited contour (blue) and the proposed WBIQ-DT Channel *39 facility's F(50,90) 41.1 dBuV/m protected noise limited contour (red) and demonstrates that the licensed WIAT-DT Channel 30 facility's protected noise limited contour extends 6.8 km farther (112.1 km at 0° radial) than the proposed WBIQ-DT Channel *39 protected noise limited contour (105.3 km at 250° radial). Exhibits 15 and 16 display the distance in kilometers from the proposed WBIQ-DT Channel *39 and licensed WIAT-DT Channel 30 facilities respectively in ten degree increments and further demonstrates that the proposed WBIQ-DT facility will not be the largest station in the market; even with an ERP of 1,000 kW. Accordingly, pursuant to §73.622(f)(5) of the FCC rules, AETC requests to operate the proposed WBIQ-DT Channel *39 facility with a maximum ERP of 1,000 kW so that it can serve the Birmingham, AL market with a signal that parallels WIAT-DT.

Transmitter Site

The proposed WBIQ-DT Channel *39 facility will operate with a directional antenna side-mounted on the WBIQ tower. The tower is registered with the FCC and the antenna structure registration number is 1226663. The support structure is located at 2371 Golden Crest Drive, Birmingham, AL. The proposed antenna height radiation center is 266.0 meters AGL (Exhibit 3).

Exhibits

Exhibits 1 and 2 represent WBIQ's administration data as well as the antenna and antenna structure specifications for the proposed digital Channel *39.

Exhibit 3 depicts the profile view of the proposed antenna on the antenna structure with all the appropriate elevations.

Exhibits 4 and 5 display the proposed antenna azimuth pattern and the proposed antenna azimuth pattern tabulation respectively.

Exhibits 6 (11 deg) and 7 (90 deg) display the elevation pattern and Exhibit 8 displays the elevation pattern tabulation.

Exhibit 9 depicts the location of the WBIQ-DT transmitter site using the Birmingham South, AL Topographic map.

Exhibit 10 is a principal community contour map demonstrating that the proposed WBIQ-DT Channel *39 DTV facility's F(50,90) 48.0 dBuV/m Principal Community contour completely encompass the principal community of Birmingham, AL.

Exhibit 11 is a contour map comparing the licensed WBIQ-DT Channel *10 F(50,90) 36.0 dBuV/m contour (blue) and the proposed WBIQ-DT Channel *39 F(50,90) 41.1 dBuV/m contour (red).

Exhibit 12 is a contour map demonstrating that the licensed WCIQ-DT Channel *7 facility will easily serve the small area of loss (magenta) resulting from the proposed change.

Exhibit 13 is a Longley-Rice interference study computed using a Sun Microsystems computer work station loaded with the FCC's DTV analysis software. The exhibit demonstrates compliance with the interference requirements pursuant to Sections 73.613(j) and 73.616 of the FCC rules.

Exhibit 14 demonstrates that the licensed WIAT-DT Channel 30 facility's protected noise limited contour extends 6.8 km farther (112.1 km at 0° radial) than the proposed WBIQ-DT Channel *39 protected noise limited contour (105.3 km at 250° radial).

Exhibits 15 and 16 display the distance in kilometers from the proposed WBIQ-DT Channel *39 and licensed WIAT-DT Channel 30 facilities respectively and demonstrates that the proposed WBIQ-DT facility will not be the largest station in the market.

Environmental Impact

The proposed construction will have no significant environmental impact as defined in §1.1307 of the FCC Rules. The digital transmitter, transmission line and antenna system shall produce an ERP of 1,000.0 kW (h-pol). It was determined that the maximum lobe of radiation from the base of the tower will occur at approximately 562.8 feet from the base of the tower (1,033.4 ft radial distance from the antenna center). At approximately 562.8 feet from the base of the tower, the depression angle of the main lobe will be approximately 57° below the horizontal. At that point, the relative field is 0.207 and the power density six feet above the ground will be approximately 0.01443 mW/cm^2. This equates to only 0.69% of the Maximum Permissible Exposure (MPE) limits for Occupational/Controlled Exposure and only 3.47% of the MPE limits for General Population/Uncontrolled Exposure authorized by the American National Standards Institute (ANSI). Since operation of the proposed WBIQ-DT Channel *39 post-transition DTV facility will not exceed 5.0% of the MPE limit for Occupational/Controlled Exposure or General Population/Uncontrolled Exposure at any point on the ground, the proposed WBIQ-DT Channel *39 facility is not considered a "significant contributor" to the RF exposure environment pursuant to OET Bulletin 65, Edition 97-01. Therefore, contributions of exposure from other sources were not accounted for in this analysis. It is safe to conclude that the emissions would be insignificant and well within the maximum allowable requirements.

If other antennas are placed on the tower in the future, the licensee will cooperate with those users by reducing or completely terminating the power to the antenna when maintenance workers are in danger from the electromagnetic radiation emanating from the antenna. It is also understood that additional antennas on the support structure could increase the overall RF exposure levels and it is the responsibility of each licensee to ensure that the total RF exposure

resulting from the operation of all antennas on the support structure do not exceed the maximum permissible exposure level at any point on the ground.

Certification

This technical statement was prepared by William T. Godfrey, Telecommunications Consultant with Kessler and Gehman Associates, Inc. having offices in Gainesville, Florida and has been working in the field of radio and television broadcast consulting since 1998. He graduated from the University of North Florida with a Bachelor of Arts degree in Criminal Justice and a minor in Mathematics in 1993. As a Professional in the field of Telecommunications he states under penalty of perjury that the information contained in this report is true and correct to the best of his knowledge and belief.

KESSLER AND GEHMAN ASSOCIATES, INC.

William T. Godfrey, Jr.

WILLIAM T. GODFREY, JR.
Telecommunications Technical Consultant

9 December, 2009

EXHIBIT

SECTION VII - DTV Engineering

TECHNICAL SPECIFICATIONS

Ensure that the specifications below are accurate. Contradicting data found elsewhere in this application will be disregarded. All items must be completed. The response "on file" is not acceptable.

TECH BOX

1. Channel Number:
   DTV 39 Analog TV, if any
2. Zone:
   ○ I ◉ II ○ III
3. Antenna Location Coordinates: (NAD 27)
   Latitude:
   Degrees 33 Minutes 29 Seconds 04 ◉ North ○ South
   Longitude:
   Degrees 86 Minutes 48 Seconds 25 ◉ West ○ East
4. Antenna Structure Registration Number: 1226663
   ☐ Not Applicable ☐ Notification filed with FAA
5. Antenna Location Site Elevation Above Mean Sea Level: 288.6 meters
6. Overall Tower Height Above Ground Level: 335.9 meters
7. Height of Radiation Center Above Ground Level: 266.0 meters
8. Height of Radiation Center Above Average Terrain (HAAT): 365.5 meters
9. Maximum Effective Radiated Power (average power): 1000 kW
10. Antenna Specifications:
    a. Manufacturer Model
    b. Electrical Beam Tilt:
    0.75 degrees ☐ Not Applicable
    c. Mechanical Beam Tilt:
    degrees toward azimuth
    degrees True ☑ Not Applicable
    Attach as an Exhibit all data specified in 47 C.F.R. Section 73.625(c). Exhibit 33
    d. Polarization:
    ◉ Horizontal ○ Circular ○ Elliptical
    e. Directional Antenna Relative Field Values: ☐ Not applicable (Nondirectional)
    [For a composite directional (not off-the-sbelf) antenna, press the following button to fill in the relative field values subform.]

EXHIBIT

	Relative Field Values If a directional antenna is proposed, the requirements of 47 C.F.R. Sections 73.625(c) must be satisfied. **Exhibit required.**	Exhibit 34
11.	Does the proposed facility satisfy the pre-transition interference protection provisions of 47 C.F.R. Section 73.623(a) (Applicable only if **Certification Checklist** Items 1(a), (b), or (c) are answered "No.") and/or the post-transition interference protection provisions of 47 C.F.R. Section 73.616? If "No," attach as an Exhibit justification therefor, including a summary of any related previously granted waivers.	(•) Yes ( ) No Exhibit 35
12.	If the proposed facility will not satisfy the coverage requirement of 47 C.F.R. Section 73.625, attach as an Exhibit justification therefor. (Applicable only if **Certification Checklist** item 3 is answered "No.")	Exhibit 36
13.	**Environmental Protection Act. Submit in an Exhibit** the following: a. If **Certification Checklist** Item 2 is answered "Yes," a brief explanation of why an Environmental Assessment is not required. Also describe in the Exhibit the steps that will be taken to limit RF radiation exposure to the public and to persons authorized access to the tower site. By checking "Yes" to **Certification Checklist** Item 2, the applicant also certifies that it, in coordination with other users of the site, will reduce power or cease operation as necessary to protect persons having access to the site, tower or antenna from radiofrequency electromagnetic exposure in excess of FCC guidelines. If **Certification Checklist** Item 2 is answered "No," an Environmental Assessment as required by 47 C.F.R Section 1.1311.	Exhibit 37

PREPARERS CERTIFICATION ON PAGE 8 MUST BE COMPLETED AND SIGNED.

Validate | Save | Clear | Menu

EXHIBIT

10e. Directional Antenna Relative Field Values

[Fill in this subform for a composite directional (not off-the-shelf) antenna, only.]

e. Directional Antenna Relative Field Values:

Rotation (Degrees): ☑ No Rotation

Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value	Degrees	Value
0	1.000	10	0.976	20	0.876	30	0.748	40	0.594	50	0.494
60	0.493	70	0.491	80	0.495	90	0.495	100	0.497	110	0.493
120	0.500	130	0.468	140	0.594	150	0.748	160	0.876	170	0.976
180	1.000	190	1.000	200	1.000	210	1.000	220	1.000	230	1.000
240	1.000	250	1.000	260	1.000	270	0.900	280	0.700	290	0.500
300	0.500	310	0.700	320	0.900	330	1.000	340	1.000	350	1.000
Additional Azimuths											

Validate | Save | Clear | Previous | Menu

PROPOSED WBIQ-DT CHANNEL 39

PETITION FOR RULE MAKING

BIRMINGHAM, ALABAMA

ENGINEERING SPECIFICATIONS

A. ***Transmitter Site:***

Geographic coordinates (NAD27):

North Latitude: 33° 29' 04"
West Longitude: 86° 48' 25"

Transmitter Site Address: **2371 Golden Crest Drive**
Birmingham, AL

B. ***Main Studio Address:*** **Alabama Educational Television Commission**
2112 11th Avenue South
Birmingham, AL 35209

Digital Facility:

DTV Channel:
Number: 39
Frequency: 620-626 MHz
Offset: N/A

C. ***Antenna Height:***

Height of Site Above Mean Sea Level (AMSL): 288.6 M
Overall Height of Structure Above Ground: 335.9 M
(including all appurtenances)
Overall Height of Structure Above Mean Sea Level: 624.5 M
(including all appurtenances)
Height of Site Above Average Terrain: 99.5 M
Antenna Height Radiation Center (R/C) Above Ground: 266.0 M
Antenna Height R/C Above Mean Sea Level: 554.6 M
Average of All Non-Odd Radials: 189.1 M
Antenna Height R/C Above Average Terrain: 365.5 M

D. ***System Parameters – Horizontal Polarization:***

Transmitter Power Required: 24.5 kW
Maximum Power Input to Antenna: 18.3 kW
Transmission Line Loss: 1.27 dB
Transmission Line Efficiency: 74.7%
Maximum Antenna Gain in Beam Maximum: 17.38 dB
Maximum Antenna Gain in Horizontal Plane: 13.48 dB
Maximum Effective Radiated Power: 30.00 dBk
In Beam Maximum: 1,000.0 kW
Maximum Effective Radiated Power: 26.10 dBk
In Horizontal Plane: 407.4 kW

PROPOSED WBIQ-DT CHANNEL 39

PETITION FOR RULE MAKING

BIRMINGHAM, ALABAMA

DATA FOR PROPOSED DIRECTIONAL TRANSMITTING ANTENNA

A. ***Antenna:*** Horizotally Polarized, Directional, Side-mount Antenna.

B. ***Electrical Beam Tilt:*** 0.75 degrees

C. ***Mechanical Beam Tilt:*** None

D.

Maximum Power Gain	**Horizontal Polarization**
Maximum:	54.7 (17.38 dB)
Horizontal:	22.3 (13.48 dB)

E. ***TPO:*** 24.5 kW

F. ***Null Fill:*** 18.1%

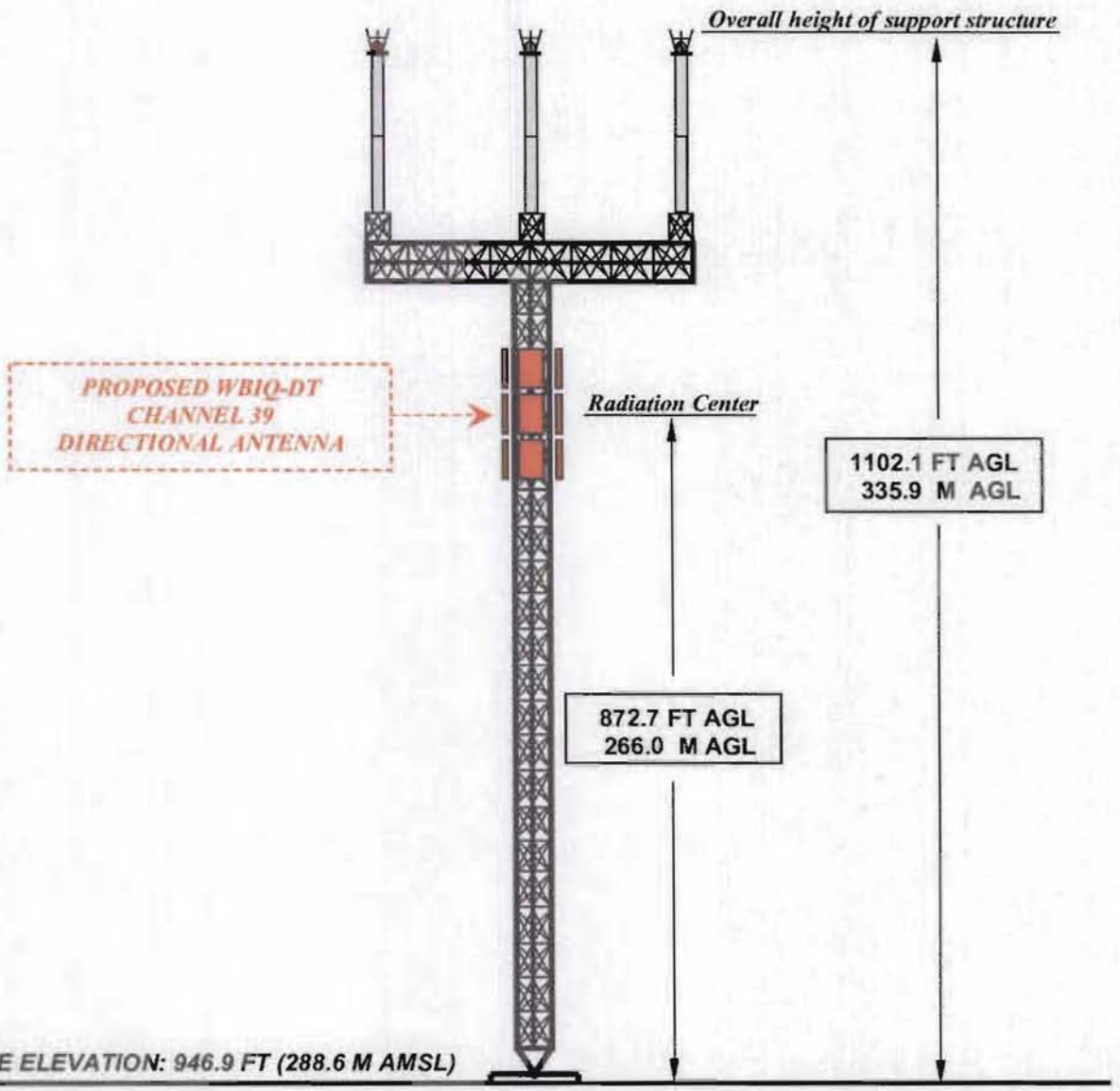
G. ***Transmission Line:*** 6-1/8" 50 ohm Digitline

H. ***Transmission Line Attenuation:*** 0.130 dB/100-feet

I. ***Transmission Line Length:*** 975 feet (297.2 meters)

J. ***Transmission Line Loss:*** 1.27 dB

SUPPORT STRUCTURE ELEVATION VIEW



OVERALL HEIGHT AGL:	335.9 M
OVERALL HEIGHT AMSL:	624.5 M
RADIATION CENTER AGL:	266.0 M
RADIATION CENTER AMSL:	554.6 M
AVG OF NON-ODD RADIALS:	189.1 M
RADIATION CENTER HAAT:	365.5 M
SITE HAAT:	99.5 M

COORDINATES: (NAD27)
N. LATITUDE 33° 29' 04"
W. LONGITUDE 86° 48' 25"

Antenna Structure Registration Number:
1226663

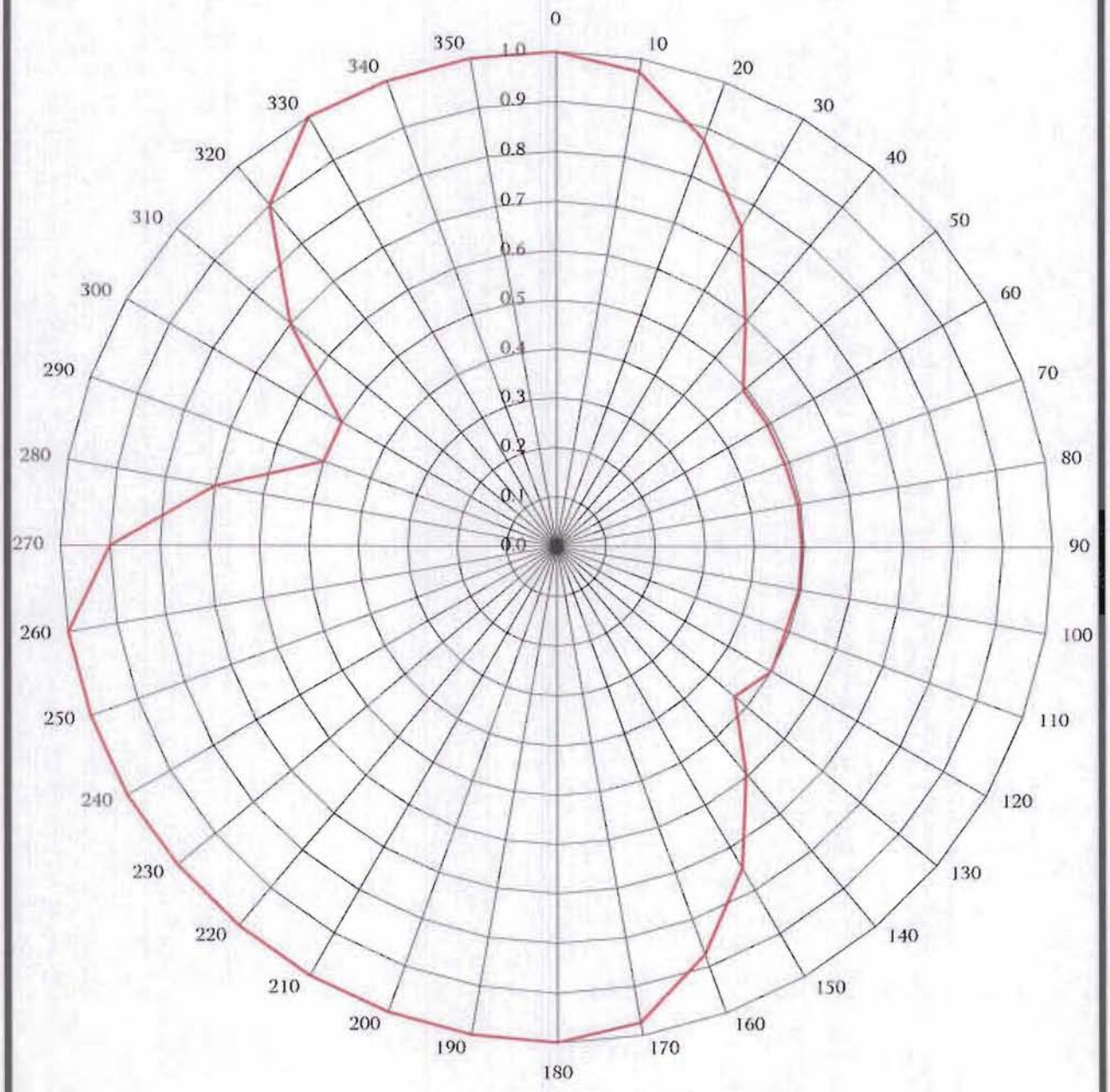
NOTE: NOT TO SCALE

KESSLER AND GEHMAN
TELECOMMUNICATIONS CONSULTING ENGINEERS
507 N.W. 60th Street, Suite C
Gainesville, Florida 32607

WBIQ-DT CHANNEL 39
Birmingham, Alabama

20091207 **EXHIBIT 3**

RELATIVE FIELD AZIMUTH PATTERN



DIRECTIONAL AZIMUTH PATTERN
AZIMUTH GAIN: 1.84 dB
ELEVATION GAIN: 15.54 dB
PEAK GAIN: 17.38 dB

KESSLER AND GEHMAN
TELECOMMUNICATIONS CONSULTING ENGINEERS
507 N.W. 60th Street, Suite C
Gainesville, Florida 32607

WBIQ-DT CHANNEL 39

Birminngham, Alabama

20091207 **EXHIBIT 4**

WBIQ-DT CHANNEL 39

Birmingham, Alabama

TABULATION OF RELATIVE FIELD FOR DIRECTIONAL ANTENNA

AZIMUTH	RELATIVE FIELD	AZIMUTH	RELATIVE FIELD
N000°E	1.000	N180°E	1.000
N010°E	0.976	N190°E	1.000
N020°E	0.876	N200°E	1.000
N030°E	0.748	N210°E	1.000
N040°E	0.594	N220°E	1.000
N050°E	0.494	N230°E	1.000
N060°E	0.493	N240°E	1.000
N070°E	0.491	N250°E	1.000
N080°E	0.495	N260°E	1.000
N090°E	0.495	N270°E	0.900
N100°E	0.497	N280°E	0.700
N110°E	0.493	N290°E	0.500
N120°E	0.500	N300°E	0.500
N130°E	0.468	N310°E	0.700
N140°E	0.594	N320°E	0.900
N150°E	0.748	N330°E	1.000
N160°E	0.876	N340°E	1.000
N170°E	0.976	N350°E	1.000

MAXIMUM RELATIVE FIELD OF 1.000
MINIMUM RELATIVE FIELD OF 0.468

KESSLER AND GEHMAN
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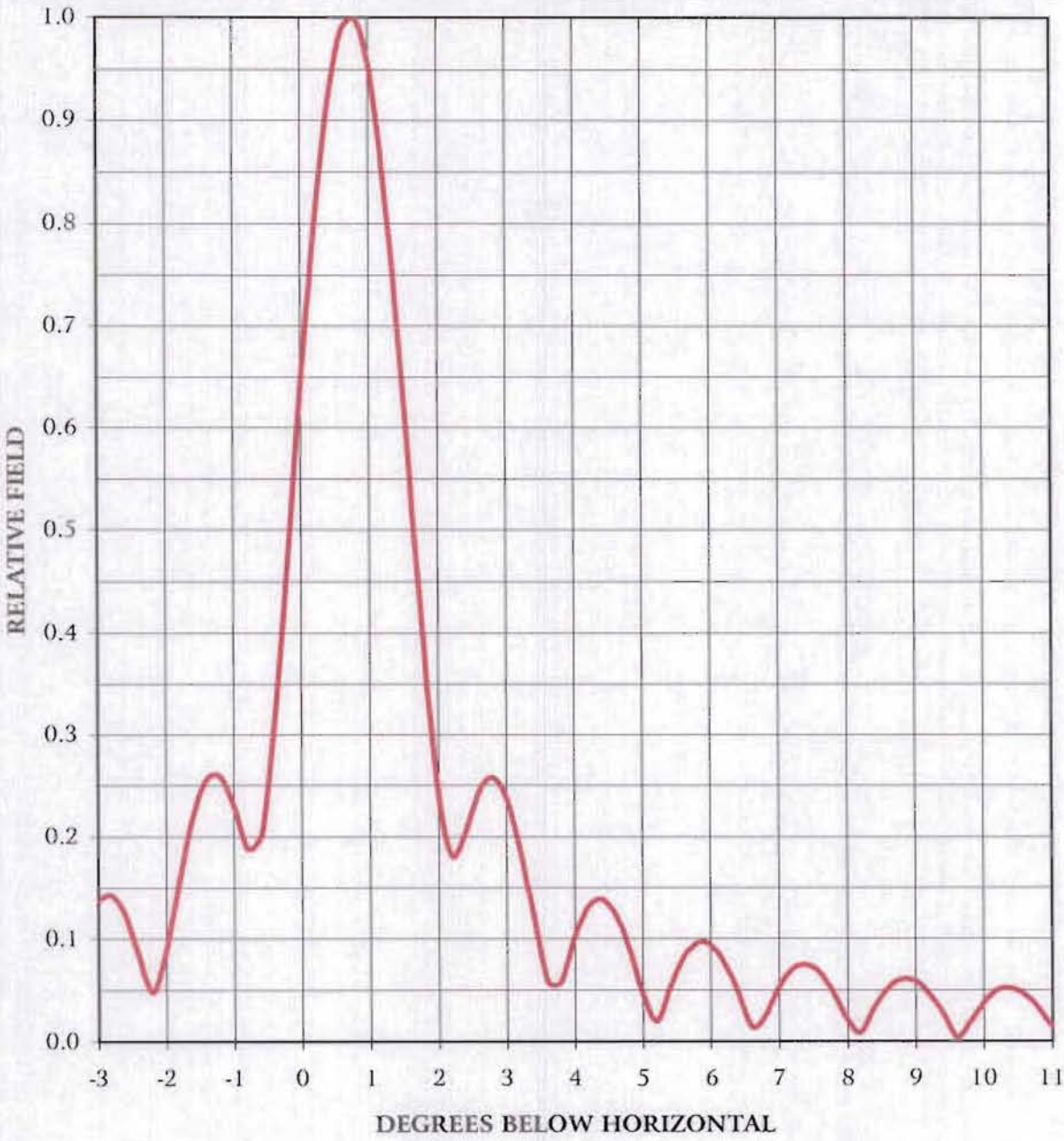
ELEVATION PATTERN

DIRECTIONAL, SIDE-MOUNT ANTENNA

RMS GAIN AT MAIN LOBE:	35.8 (15.54 dB)	ELECTRICAL BEAM TILT:	0.75°
RMS GAIN AT HORIZONTAL:	14.6 (11.64 dB)	MECHANICAL BEAM TILT:	0.0°
CALCULATED/MEASURED:	CALCULATED	FREQUENCY:	623 MHz



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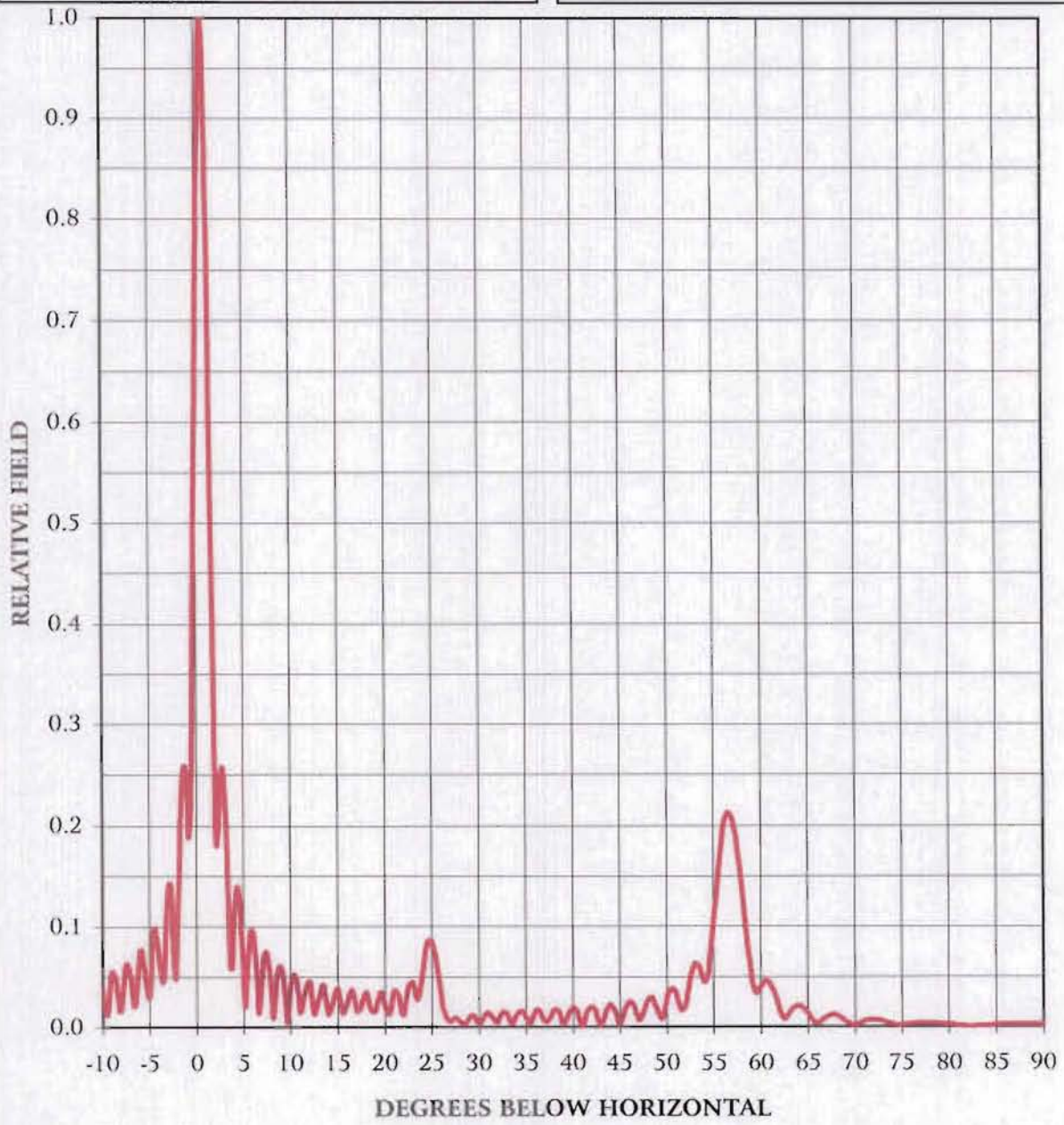
ELEVATION PATTERN

DIRECTIONAL, SIDE-MOUNT ANTENNA

RMS GAIN AT MAIN LOBE:	35.8 (15.54 dB)
RMS GAIN AT HORIZONTAL:	14.6 (11.64 dB)
CALCULATED/MEASURED:	CALCULATED

ELECTRICAL BEAM TILT:	0.75°
MECHANICAL BEAM TILT:	0.0°
FREQUENCY:	623 MHz



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TABULATION OF RELATIVE FIELD FOR PROPOSED DIRECTIONAL ANTENNA

ANGLE	FIELD	ANGLE	FIELD	ANGLE	FIELD	ANGLE	FIELD	ANGLE	FIELD	ANGLE	FIELD
-10.0	0.038	2.4	0.205	10.8	0.046	30.5	0.009	51.0	0.034	71.5	0.007
-9.5	0.012	2.6	0.245	10.8	0.033	31.0	0.014	51.5	0.017	72.0	0.007
-9.0	0.054	2.8	0.258	11.0	0.014	31.5	0.008	52.0	0.022	72.5	0.007
-8.5	0.042	3.0	0.238	11.5	0.033	32.0	0.005	52.5	0.048	73.0	0.006
-8.0	0.016	3.2	0.189	12.0	0.045	32.5	0.014	53.0	0.063	73.5	0.004
-7.5	0.062	3.4	0.123	12.5	0.013	33.0	0.013	53.5	0.060	74.0	0.003
-7.0	0.048	3.6	0.059	13.0	0.029	33.5	0.003	54.0	0.045	74.5	0.001
-6.5	0.021	3.8	0.058	13.5	0.041	34.0	0.011	54.5	0.056	75.0	0.001
-6.0	0.076	4.0	0.102	14.0	0.013	34.5	0.016	55.0	0.103	75.5	0.002
-5.5	0.057	4.2	0.132	14.5	0.026	35.0	0.010	55.5	0.154	76.0	0.003
-5.0	0.030	4.4	0.139	15.0	0.038	35.5	0.004	56.0	0.194	76.5	0.004
-4.5	0.097	4.6	0.124	15.5	0.014	36.0	0.015	56.5	0.212	77.0	0.004
-4.0	0.072	4.8	0.090	16.0	0.023	36.5	0.016	57.0	0.207	77.5	0.004
-3.5	0.047	5.0	0.047	16.5	0.037	37.0	0.006	57.5	0.181	78.0	0.004
-3.0	0.138	5.2	0.020	17.0	0.016	37.5	0.008	58.0	0.139	78.5	0.004
-2.8	0.142	5.4	0.052	17.5	0.020	38.0	0.017	58.5	0.093	79.0	0.003
-2.6	0.123	5.6	0.082	18.0	0.035	38.5	0.015	59.0	0.052	79.5	0.003
-2.4	0.082	5.8	0.096	18.5	0.018	39.0	0.002	59.5	0.034	80.0	0.002
-2.2	0.048	6.0	0.094	19.0	0.016	39.5	0.012	60.0	0.040	80.5	0.002
-2.0	0.089	6.2	0.076	19.5	0.035	40.0	0.019	60.5	0.046	81.0	0.001
-1.8	0.159	6.4	0.047	20.0	0.022	40.5	0.014	61.0	0.043	81.5	0.001
-1.6	0.219	6.6	0.014	20.5	0.013	41.0	0.000	61.5	0.032	82.0	0.000
-1.4	0.256	6.8	0.026	21.0	0.036	41.5	0.014	62.0	0.018	82.5	0.000
-1.2	0.259	7.0	0.053	21.5	0.029	42.0	0.020	62.5	0.008	83.0	0.001
-1.0	0.230	7.2	0.071	22.0	0.012	42.5	0.014	63.0	0.013	83.5	0.001
-0.8	0.188	7.4	0.075	22.5	0.040	43.0	0.001	63.5	0.019	84.0	0.001
-0.6	0.201	7.6	0.067	23.0	0.044	43.5	0.015	64.0	0.021	84.5	0.001
-0.4	0.310	7.8	0.047	23.5	0.027	44.0	0.022	64.5	0.019	85.0	0.002
-0.2	0.470	8.0	0.021	24.0	0.052	44.5	0.016	65.0	0.014	85.5	0.002
0.0	0.639	8.2	0.009	24.5	0.083	45.0	0.002	65.5	0.007	86.0	0.002
0.2	0.794	8.4	0.034	25.0	0.085	45.5	0.016	66.0	0.003	86.5	0.002
0.4	0.914	8.6	0.052	25.5	0.063	46.0	0.025	66.5	0.007	87.0	0.002
0.6	0.985	8.8	0.061	26.0	0.031	46.5	0.021	67.0	0.010	87.5	0.002
0.8	1.000	9.0	0.059	26.5	0.010	47.0	0.007	67.5	0.012	88.0	0.002
1.0	0.956	9.2	0.047	27.0	0.006	47.5	0.013	68.0	0.012	88.5	0.002
1.2	0.858	9.4	0.028	27.5	0.009	48.0	0.027	68.5	0.009	89.0	0.002
1.4	0.718	9.6	0.005	28.0	0.006	48.5	0.029	69.0	0.006	89.5	0.002
1.6	0.553	9.8	0.019	28.5	0.003	49.0	0.017	69.5	0.003	90.0	0.002
1.8	0.385	10.0	0.038	29.0	0.010	49.5	0.008	70.0	0.001		
2.0	0.245	10.2	0.050	29.5	0.011	50.0	0.027	70.5	0.004		
2.2	0.181	10.4	0.052	30.0	0.003	50.5	0.038	71.0	0.006		

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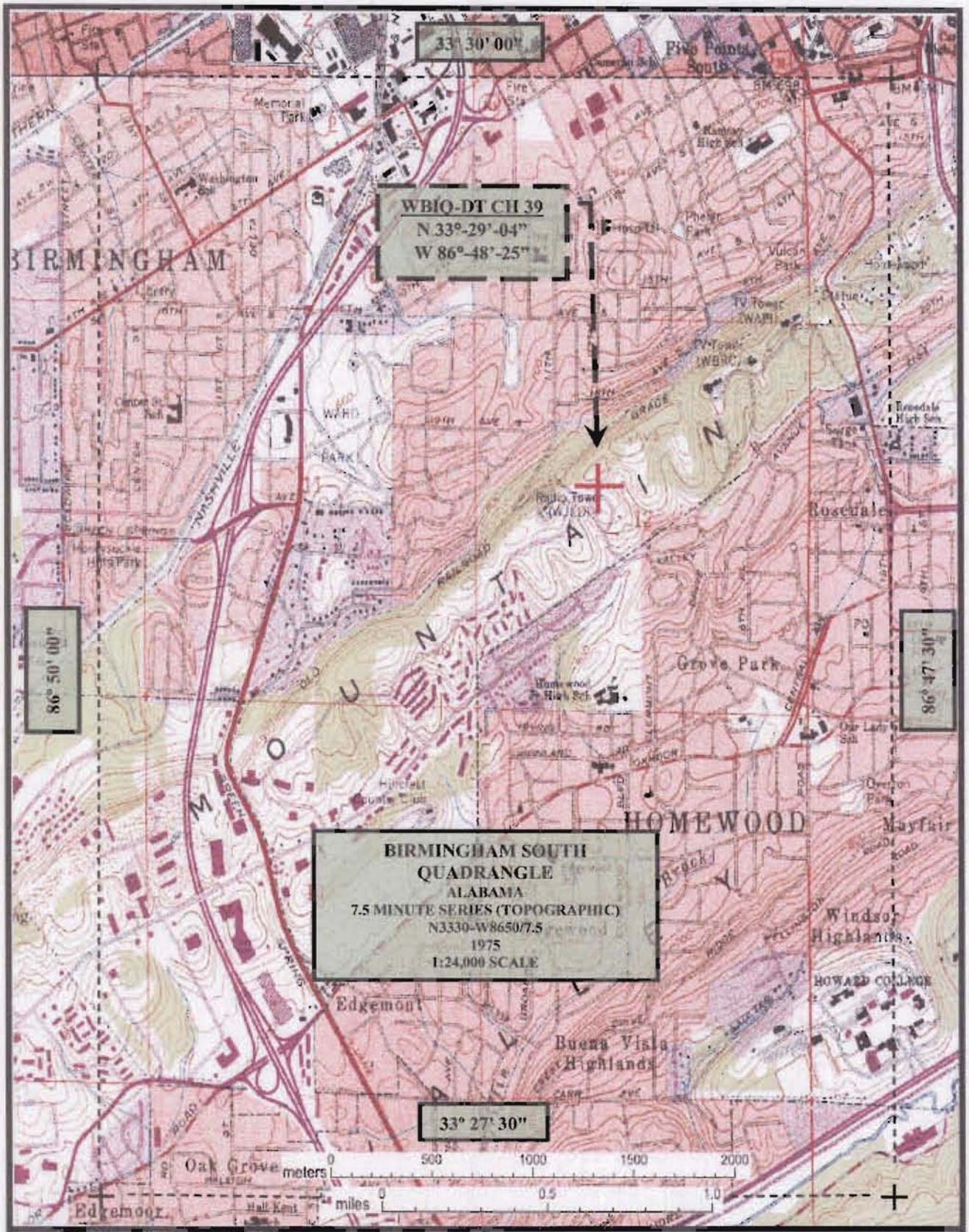
EXHIBIT 8



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20091201 **EXHIBIT 9**